

CLAIM AMENDMENTS

1 1. (Currently amended) A recombinant poxvirus comprising at least  
2 two ~~homologous~~ foreign genes which are homologous in comparison to  
3 each other, wherein each of said genes is inserted into a different  
4 insertion site of the viral genome.

1 2. (Currently amended) The recombinant poxvirus according to claim  
2 1, wherein the genes have a homology of at least 50% in comparison  
3 to each other.

1 3. (Currently amended) A recombinant poxvirus comprising at least  
2 two homologous foreign genes, said genes having a homology of at  
3 least 60% in comparison to each other.

1 4. (Currently amended) The recombinant poxvirus according to claim  
2 2, wherein the genes have a homology of 65-75% in comparison to  
3 each other.

1 5. (Previously presented) The recombinant poxvirus according to  
2 claim 1, wherein the genes are derived from a flavivirus.

1 6. (original) The recombinant poxvirus according to claim 5,  
2 wherein the flavivirus is a Dengue virus.

1     7. (Previously presented) The recombinant poxvirus according to  
2     claim 5, wherein the genes are at least two homologous genes  
3     derived from at least two different serotypes of the virus.

1     8. (Previously presented) The recombinant poxvirus according to  
2     claim 5, wherein the genes are at least two PrM genes.

1     9. (Previously presented) The recombinant poxvirus according to  
2     claim 5, wherein the genes are 4 PrM genes.

1     10. (Previously presented) The recombinant poxvirus according to  
2     claim 1, wherein the poxvirus is a Vaccinia virus.

1     11. (original) The recombinant poxvirus according to claim 10,  
2     wherein the Vaccinia virus is a Modified Vaccinia Ankara (MVA)  
3     virus.

1     12. (original) The recombinant poxvirus according claim 11,  
2     wherein the MVA is MVA-BN deposited at the European Collection of  
3     Animal Cell Cultures (ECACC) under number V00083008.

1     13. (Previously presented) The recombinant poxvirus according to  
2     claim 1, wherein the poxvirus is replication deficient or  
3     replication incompetent in mammalian cells, including human cells.

1 14. (Previously presented) The recombinant poxvirus according to  
2 claim 1, wherein the genes are inserted into a naturally occurring  
3 deletion site and/or into an intergenic region of the poxviral  
4 genome.

1 15. (Previously presented) The recombinant poxvirus according to  
2 claim 1 as medicament or vaccine.

1 16. (Previously presented) A vaccine comprising the recombinant  
2 poxvirus according to claim 1.

1 17. (Previously presented) A pharmaceutical composition comprising  
2 the recombinant poxvirus according to claim 1 and a  
3 pharmaceutically acceptable carrier, diluent, adjuvant and/or  
4 additive.

1 18. (Currently amended) The recombinant poxvirus according to  
2 claim 1, ~~the vaccine according to claim 16 or the composition~~  
3 ~~according to claim 17~~ for affecting, preferably inducing, effecting  
4 an immune response of a living animal, including a human.

19. (Canceled)

1 20. (Currently amended) A method for ~~affecting, preferably~~  
2 ~~inducing, effecting~~ an immune response in a living animal,  
3 including a human, comprising administering a therapeutically

4 effective amount of the recombinant poxvirus according to claim 1,  
5 to the animal or human to be treated.

1 21. (currently amended) [[A]] An isolated cell comprising the  
2 recombinant poxvirus according to claim 1.

1 22. (Previously presented) A method for producing a recombinant  
2 poxvirus according to claim 1 comprising the steps of

3 - infecting a cell with a poxvirus;

4 - transfecting the infected cell with a first vector  
5 construct comprising a gene being heterologous to the poxviral  
6 genome, and a genomic poxvirus sequence capable of directing the  
7 integration of the heterologous gene into an insertion site of the  
8 poxviral genome;

9 - identifying, isolating and, optionally, purifying the  
10 generated recombinant poxvirus;

11 - repeating the above steps by using the recombinant  
12 poxvirus obtained from previous steps for infecting the cell and an  
13 additional vector construct comprising a further gene being  
14 heterologous to the poxviral genome and homologous to the gene of  
15 the first vector construct.

1 23. (Currently amended) A kit comprising

2 - two or more vector constructs, each construct  
3 comprising a gene under transcriptional control of a poxviral  
4 expression control element, wherein the genes included in the  
5 different vectors are homologous genes in comparison to each other,  
6 and wherein each gene is flanked by a poxviral DNA sequence capable  
7 of directing the integration of the gene into a poxviral genome,  
8 and

9 - means for identifying and/or selecting recombinant  
10 poxviruses, which have incorporated said homologous genes into  
11 their genome.

1 24. (original) The kit according to claim 23, wherein each  
2 homologous gene is flanked by a poxviral DNA sequence capable of  
3 directing the integration of said homologous gene of each vector  
4 construct into a different insertion site of the poxviral genome.

1 25. (Previously presented) A DNA sequence derived from or  
2 homologous to the recombinant poxviral genome of the recombinant  
3 poxvirus according to claim 1, wherein said DNA sequence comprises  
4 at least two homologous genes and at least part of the sequences of  
5 the poxviral genome.

1 26. (currently amended) A method for detecting cells infected with  
2 the recombinant poxvirus according to claim 1, said method  
3 comprising administering [[the]] a DNA sequence derived from or

4 homologous to the recombinant poxvirus according to claim 1,  
5 wherein said DNA sequence comprises at least two homologous genes  
6 and at least one part of the sequences of the poxviral genome, to  
7 said cells.

1 27. (currently amended) A method for identifying the recombinant  
2 poxvirus according to claim 1, said method comprising administering  
3 [[the]] a DNA sequence derived from or homologous to the  
4 recombinant poxvirus according to claim 1, wherein said DNA  
5 sequence comprises at least two homologous genes and at least one  
6 part of the sequences of the poxviral genome, to said virus.